

## **ABSTRACT**

Disclosed are nucleotide sequences encoding polypeptides which are responsible for controlling side-shoot formation and/or petal formation and/or abscission zone formation as well as to the polypeptides and amino acid sequences encoded by said nucleotide sequences. Disclosed are also plants having controlled side-shoot formation and/or petal formation and/or controlled formation of abscission zones, wherein the expressible DNA sequence or fragment or derivative thereof responsible for side-shoot formation and/or petal formation and/or abscission zone formation is integrated in a stable manner into the genome of the plant cell or the plant tissue. Further disclosed are methods for the production of plants having controlled side-shoot formation and/or petal formation and/or controlled formation of abscission zones, wherein the expressible DNA sequence or fragment or derivative thereof responsible for side-shoot formation and/or petal formation and/or abscission zone formation is integrated in a stable manner into the genome of plant cells or plant tissues and the resulting plant cells or plant tissues are regenerated to form plants. Moreover, the invention relates to plants and seed stocks of plants, which are obtainable according to the method of the invention.